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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,293	03/25/2005	Manfred Hubinger	HUBINGER, M. ET AL 1	4663
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25889	7590	05/03/2007	EXAMINER	
WILLIAM COLLARD			KERNS, KEVIN P	
COLLARD & ROE, P.C.				
1077 NORTHERN BOULEVARD			ART UNIT	PAPER NUMBER
ROSLYN, NY 11576			1725	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,293

Applicant(s)

HUBINGER ET AL.

Examiner

Kevin P. Kerns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2005 and 01 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 15-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 25 (4th line from the end), the phrase "will be" is indefinite, as "will be" broadly recites optional functions of being "activated or deactivated". It is suggested to replace "will be" with "is" to more distinctly define this limitation.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 8-90481 in view of GB 2 118 524, and further in view of EP 0 352 576 (complete translation of EPO document (German text) provided with this Office Action).

JP 8-90481 discloses an external contact detecting device, including a switch-off (shut-off) box (Figure 4b) for a welding torch 4 (Figure 1) mounted on a robot system (Figure 2), in which the switch-off box (see abstract and the international search report, which cites JP 8-90481 as the closest prior art) comprises coupling means (3,5,7,9,10) mounted on a bearing plate 6 in a housing 2 of a body of the welding torch 4, such that coupling means (3,5,7,9,10) are connected to the torch body connected to a hose pack 23 (Figure 3) and allow transmission of electric energy; two oppositely arranged openings (channels) in the housing, such that the housing is comprised of a projection on one side and at least two parts (including an insulating external ring in the intermediate portion of the housing) attached by coupling means in the form of bolts and including a top bearing surface (supporting surface) of the tool side housing 3 (Figure 4a) to couple the housing parts to each other and the torch body and the hose pack, with the supporting surface of tool side housing 3 providing both punctual contact with the housing and connection to the contacting/switching elements, in the form of switch 11 of Figures 1, 3, and 4 (abstract; paragraphs [0002]-[0010] of Japanese text; and Figures 1-4). JP 8-90481 does not specifically disclose that the supporting surface,

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when lifted from the housing, is operable to activate and/or deactivate the contacting/switching element, and thus transmit a signal from the contacting/switching element to an interfaced control device or the robot system, as well as the coupling means having channels for transfer of supplied media (e.g. coolant air or water).

However, GB 2 118 524 discloses an industrial robot that includes a welding torch, in which the welding torch 24 is supported to be free from positional deviations during operations of the robot R while being capable of being tilted and slidably moved with respect to a movable unit of the robot R, such that a supporting surface of the coupling means is operable to be lifted from a portion of the housing (cap member 15) via spring presser 14, sleeve 18, compression spring 20, and flexible guide 21, to provide detection of welding position by a single detector 25 in the spring presser 14, and thus activate and/or deactivate the contacting/switching element, resulting in transmission of a signal (and a potential abnormal state) from the contacting/switching element to an interfaced control device on the robot system, in which these features are advantageous for providing the welding torch with the capability of being freely displaced in acting directions of external forces without a possibility of damages to various parts and components (abstract; page 1, lines 5-11 and 109-130; page 2, lines 1-42 and 80-130; page 3, lines 1-130; page 4, lines 1-47; and Figures 3-10).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the external contact detecting device, including a switch-off (shut-off) box for a welding torch mounted on a robot system, as disclosed by JP 8-90481, by using the industrial robot that includes a welding torch that

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includes the supporting surface operable to activate and/or deactivate the contacting/switching element, and thus transmit a signal from the contacting/switching element to an interfaced control device or the robot system, as taught by GB 2 118 524, in order to provide the welding torch with the capability of being freely displaced in acting directions of external forces without a possibility of damages to various parts and components (GB 2 118 524; abstract; page 1, lines 109-126; and page 2, lines 30-42).

Neither JP 8-90481 nor GB 2 118 524 specifically discloses the coupling means having channels for transfer of supplied media (e.g. coolant air or water).

However, EP 0 352 576 (complete translation provided with this Office Action) discloses a welding torch that is controlled by an industrial robot with cutoff safety (switch-off box), in which the welding torch includes a coupling means (plug-in coupling 31) having channels that supply inert gas and a cooling agent via hose 19 and hose nozzle 20 (page 3, lines 1-11; and page 5, last two full paragraphs of translation), such that the coupling means having channels for transfer of cooling media is advantageous for providing cooling to the welding torch while providing greater line elasticity in the event of yielding movement of the torch, thus obtaining increased durability and operational reliability (abstract; pages 2-6 of translation; and Figures 1-4).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the external contact detecting device, including a switch-off (shut-off) box for a welding torch mounted on a robot system, as disclosed by JP 8-90481, by using the industrial robot that includes a welding torch that includes the supporting surface operable to activate and/or deactivate the

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contacting/switching element, and thus transmit a signal from the contacting/switching element to an interfaced control device or the robot system, as taught by GB 2 118 524, in order to provide the welding torch with the capability of being freely displaced in acting directions of external forces without a possibility of damages to various parts and components, and by further using the coupling means having channels for transfer of supplied media (e.g. coolant air or water), as disclosed by EP 0 352 576, in order to provide cooling to the welding torch while providing greater line elasticity in the event of yielding movement of the torch, thus obtaining increased durability and operational reliability (EP 0 352 576; page 3, lines 1-11; and page 5, last full paragraph of translation).

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Further, the examiner notes that intended use limitations, such as “for transferring supplied media from one side of the coupling means to another” (apparatus claim 25), do not have patentable weight in an apparatus claim, since these limitations do not distinctly provide further structural limitations to this apparatus claim. See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969) that states “Expressions relating to the apparatus to contents thereof and to an intended operation are of no significance in determining patentability of the apparatus claim.” See MPEP 2114 and 2115.

Response to Arguments

6. The examiner acknowledges the applicants' amendment provided with the request for continued examination received by the USPTO on April 20, 2007. The amendments overcome prior objections to the specification and claims, as well as all except one of the 35 USC 112, 2nd paragraph rejections (see above section 2). Claims 15-25 remain under consideration in the application.

7. Applicants' arguments with respect to claims 15-25 have been considered but are moot in view of the new ground(s) of rejection.

With regard to the applicants' remarks/arguments on pages 7-9 of the amendment, the applicants are referred to the newly underlined portions of above section 5 as applied to the amendments to independent claim 25 and the addition of the EP 0 352 576 reference (the newly applied reference addresses the applicants' remarks in the paragraph bridging pages 7 and 8 of the remarks). The remainder of the arguments on pages 8 and 9 continue to not directly state what claim limitation(s) that JP 8-90481 allegedly do not teach, but instead only provide several operational disadvantages as follows: "not an independent device but rather an integration of the welding torch", "difficult to mount and demount the welding torch, and further can be hindering when manipulating the robot system", and "external electrical connections will negatively influence the response behavior of the switch-off box". Even if these three alleged disadvantages were true, none of them are directly applicable to and claimed in

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independent claim 25 (see next paragraph). On page 8 (2nd full paragraph), the applicants state, "GB 2 118 524 A shows a similar construction to that of the aforementioned JP 8-90481 A with the same disadvantages and differences from the present invention.". Again, the applicants have not specified what claim limitation(s) are allegedly not taught by either or both references in combination. The examiner continues to set forth (in above section 5) that JP 8-90481 does not specifically disclose that the supporting surface, when lifted from the housing, is operable to activate and/or deactivate the contacting/switching element, and thus transmit a signal from the contacting/switching element to an interfaced control device or the robot system. However, GB 2 118 524 discloses these features, and including motivation to combine with JP 8-90481, namely in order to provide the welding torch with the capability of being freely displaced in acting directions of external forces without a possibility of damages to various parts and components (see section 5).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "not an independent device but rather an integration of the welding torch", "difficult to mount and demount the welding torch, and further can be hindering when manipulating the robot system", and "external electrical connections will negatively influence the response behavior of the switch-off box") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns *Kevin Kerns 4/30/07*
Primary Examiner
Art Unit 1725

KPK
kpk
April 30, 2007